

**What is claimed is:**

1       1. A method for introducing micro-volume liquid  
2 comprising:

3             providing a multi-channel inkjet print head  
4                 including a cartridge and a nozzle plate with a  
5                 plurality of nozzles, wherein the cartridge  
6                 includes a plurality of channels, communicating  
7                 with the nozzles on the nozzle plate, and a  
8                 plurality of openings located at the channels;  
9             contacting the nozzle plate with a buffer;  
10            introducing the buffer into the channels via the  
11                 nozzles by providing a pressure; and  
12            introducing reagents into the channels via the  
13                 openings.

1       2. The method as claimed in claim 1, wherein the  
2 buffer excludes biomolecules therein.

1       3. The method as claimed in claim 1, further  
2 comprising:

3             after introducing the buffer into the channels,  
4                 removing part of the buffer from the channels.

1       4. The method as claimed in claim 3, wherein the  
2 volume of the removed buffer is not less than the volume  
3 of the introduced reagents.

1       5. The method as claimed in claim 1, wherein the  
2 pressure is positive so that the buffer is pushed into  
3 the channels via the nozzles.

1           6. The method as claimed in claim 1, wherein the  
2 pressure is negative so that the buffer is drawn into the  
3 channels via the openings.

1           7. The method as claimed in claim 6, wherein the  
2 negative pressure is generated by vacuuming the openings.

1           8. The method as claimed in claim 1, wherein the  
2 reagents include biomolecules therein, and the  
3 biomolecules are oligonucleotides, peptides, proteins, or  
4 derivatives thereof.

1           9. The method as claimed in claim 1, wherein the  
2 reagents are introduced into the channels by pipettes.

1           10. An apparatus for introducing micro-volume  
2 liquid comprising:

3           a multi-channel inkjet print head including  
4           cartridge and a nozzle plate with a plurality  
5           of nozzles, wherein the cartridge includes a  
6           plurality of channels, communicating with the  
7           nozzles on the nozzle plate, and a plurality of  
8           openings located at the channels;

9           a container for receiving a buffer, wherein the  
10          buffer and the nozzle plate are in contact;

11          a pressure supply for providing pressure to the  
12          multi-channel inkjet print head so that the  
13          buffer is introduced into the channels; and

14          an injector, disposed in the channels, for receiving  
15          a reagent therein and introducing the reagent  
16          into the channels via the openings.

1           11. The apparatus as claimed in claim 10, further  
2 comprising:

3           an absorber, disposed in the channels, for removing  
4           a predetermined amount of the buffer from the  
5           channels.

1           12. The apparatus as claimed in claim 10, wherein  
2 the pressure supply communicates with the container, and  
3 provides a positive pressure to the container so that the  
4 buffer is pushed into the channels.

1           13. The apparatus as claimed in claim 10, wherein  
2 the pressure supply communicates with the openings, and  
3 provides a negative pressure to the channels so that the  
4 buffer is drawn into the channels.

1           14. The apparatus as claimed in claim 10, wherein  
2 the reagents includes biomolecules therein, and the  
3 biomolecules are oligonucleotides, peptides, proteins, or  
4 derivatives thereof.

1           15. The apparatus as claimed in claim 10, wherein  
2 the buffer excludes the biomolecules.

1           16. The apparatus as claimed in claim 10, wherein  
2 the injector is a pipette.